

harming others and/or themselves. Therefore the importance of preventing deterioration in a patient's condition as measured by PANSS is not only beneficial to the patient but also to society. Given the difficulties in this patient population about maintaining treatment compliance, it may be worthwhile to allocate funds aimed at reducing symptoms directly or indirectly by improving compliance.

PMH21

TREATMENT PERSISTENCE: A COMPARISON AMONG PATIENTS WITH SCHIZOPHRENIA WHO WERE INITIATED ON ATYPICAL ANTIPSYCHOTIC AGENTS

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OBJECTIVES: Clinical trials have demonstrated the efficacy of atypical antipsychotic agents in reducing symptoms of schizophrenia. However, the likelihood of sustaining control of schizophrenic symptoms may depend on treatment persistence. In this study, we compared treatment persistence between patients who were initiated on risperidone or olanzapine, the two most widely prescribed atypical antipsychotic agents. **METHODS:** We identified patients with schizophrenia by ICD-9-CM codes (>1 inpatient or >2 outpatient ICD-9-CM codes >7 days apart) between July 1, 1998 and June 30, 1999. We further selected those who were prescribed the target drug during April 1, 1999 through March 31, 2000 provided that they were not on any antipsychotic agents during the prior six months. Using event history analysis, we compared treatment persistence in terms of hazard ratio between olanzapine and risperidone initiators, adjusting for patient sociodemographic and clinical characteristics. **RESULTS:** Following the initiation of the target drug, more patients switched from risperidone to olanzapine than visa versa. Olanzapine initiators had decreased hazards of discontinuation by 14% (unadjusted; $p < 0.001$) and 12% (adjusted; $p = 0.002$), respectively, than risperidone initiators. **CONCLUSIONS:** Compared with risperidone, olanzapine seems to be better tolerated by patients as indicated by better treatment persistence. The initiation of olanzapine may thus increase the likelihood of sustaining control of symptoms of schizophrenia. Future research needs to provide a more comprehensive assessment of treatment persistence by considering other factors, such as formulary decision, and other antipsychotic agents in the study and developing models to assess treatment persistence and switching as two interdependent competing risks.

PMH22

HOSPITALIZATION AND MEDICATION USE IN SCHIZOPHRENIA PATIENTS RECEIVING RISPERIDONE LONG-ACTING INJECTABLE OR ORAL ATYPICAL ANTIPSYCHOTIC MEDICATION

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OBJECTIVE: To compare time to first psychiatric-related hospitalization and time to first medication switch in schizophrenia patients receiving risperidone long-acting injectable (RLAI) or a new oral atypical antipsychotic. **METHODS:** Study sites participating in RLAI clinical trials in Canada carried out a retrospective chart review of hospitalization and medication use in schizophrenia patients initiated on RLAI between June 1, 1999 and November 30, 2000. Identical parameters were assessed in similar patients initiated on a new oral atypical antipsychotic

(control patients) over the same period. **RESULTS:** Sixty-three RLAI and 74 control charts were reviewed. Control patients were significantly younger than those in the RLAI group (39.1 years versus 45.3, $p = 0.0073$) and received risperidone (48.6%), olanzapine (41.9%) and quetiapine (6.8%) as the oral atypical antipsychotic. Over the assessment periods, 56.8% of control patients were hospitalized versus 4.8% of RLAI patients ($p < 0.0001$). For those patients hospitalized, time to first hospitalization was marginally but not significantly lower for RLAI patients at 13.8 months compared to 19.3 months for the control patients, respectively ($p = 0.6365$). However, control patients had a significantly increased risk of hospitalization, as indicated by Kaplan Meier survival analysis ($p < 0.0001$ by log-rank test). There was no significant difference in the number of patients switching medication (47.6% and 59.5% for RLAI and controls respectively, $p = 0.1742$) or in time to first medication switch (39.71 and 34.52 months, log-rank $p = 0.2076$). However, time to relapse, defined as a hospitalization or a medication switch, was significantly different ($p = 0.0004$ by log-rank test) with 50% of controls reaching this endpoint at 18 months versus 60 months for RLAI patients. **CONCLUSIONS:** This study provides evidence that RLAI is superior to oral atypicals in reducing hospitalizations. Furthermore, by virtue of its bi-weekly administration, RLAI offers atypical therapy without the serious compliance issues associated with an oral medication, providing clinical and potential economic advantages.

PMH23

IMPACT OF RISPERIDONE LONG-ACTING INJECTABLE ON HOSPITALIZATION AND MEDICATION USE IN PATIENTS WITH SCHIZOPHRENIA

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OBJECTIVE: To compare psychiatric-related hospitalization and medication use in patients with schizophrenia, before and after initiation of risperidone long-acting injectable (RLAI) therapy. **METHODS:** Schizophrenia patients who participated in RLAI clinical trials in Canada were identified and their charts were retrospectively reviewed to assess hospitalization and medication use over identical periods before and after the initiation of RLAI therapy. **RESULTS:** Sixty-three charts were reviewed. The mean RLAI treatment period was 40.3 months with 52.4% of patients still receiving therapy at the time of the chart audit. The pre- and post-RLAI assessment periods were identical at 39.4 and 40.3 months, respectively ($p = 0.8293$). There were statistically significant differences in hospitalization before and after the initiation of RLAI therapy. After initiation of RLAI therapy fewer patients were hospitalized (52.4% prior to RLAI versus 4.8% during RLAI treatment, Relative Risk = 10.9, $p < 0.0001$), fewer patients had more than one hospitalization (24% versus 0%, $p < 0.0001$), the total duration of hospitalization days decreased by 99% (1558 versus 23, $p < 0.0001$), the number of hospitalizations per patient decreased by 89% (0.9 versus 0.1, $p < 0.0001$) and duration of hospitalization decreased by 98% (24.7 days per patient versus 0.4, $p < 0.0001$). Furthermore, anticholinergic and anxiolytic use decreased from 81% of patients to 64% ($p = 0.0459$) and 57% to 35% (0.0198), respectively, with RLAI while sedative use was not significantly different (22% and 16% of patients used sedatives pre- and post-RLAI, respectively, $p = 0.4967$). **CONCLUSIONS:** RLAI had a significant impact on hospitalization of schizophrenia patients, offering a clear clinical benefit compared to traditional antipsychotic therapy. In addition, the significant decrease in hospitalization

with RLAI offers the potential for substantial cost savings in the care of these patients.

PMH24

GEO OBSERVATIONAL STUDY: 24 MONTHS CHARACTERISTICS OF SOCIOECONOMIC AND CLINICAL STATUS IN SCHIZOPHRENIA PATIENTS TREATED WITH OLANZAPINE AND HALOPERIDOL IN GERMANY

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OBJECTIVES: To describe real life disease characteristics, clinical status and socioeconomics for schizophrenia in- and outpatients treated with olanzapine or haloperidol over 24 months. **METHODS:** GEO is a two-year prospective naturalistic study in Germany. Quarterly observations were made for 308 patients under olanzapine treatment and 188 patients under haloperidol treatment. **RESULTS:** Compared to haloperidol patients, more patients included into the study under olanzapine lived at home without care (59% vs. 39%), were employed (35% vs. 17%), and fewer were in early retirement (30% vs. 51%). During the observational period, olanzapine and haloperidol treatment was stable (olanzapine: 94% retention vs. haloperidol: 92%; dosage changes occurred in 64% vs. 47%, respectively). Concomitant medication related to schizophrenia was prescribed less frequently for olanzapine patients (52% vs. 68%). Mean disease severity, negative and cognitive symptoms as assessed by CGI (scales from no symptoms (one) to very severe (seven)) ranged between three and four. Positive and depressive symptom values were lower (mean value between two and three). During the course of the study disease severity improved for all symptoms with slightly more improvement in olanzapine patients (mean change in disease severity: olanzapine 0.95; haloperidol 0.76). Throughout the 24-month period, olanzapine patients had lower average EPS, parkinsonism, retardation, dyskinesia and akathisia symptom scores (none (1) to severe (6)) than haloperidol patients (mean EPS: olanzapine 1.3; haloperidol 2.0). Weight gain, depression and other symptoms were reported more frequently for olanzapine (<28% vs. <11%). Nevertheless, olanzapine patients showed a lower mean Body Mass Index (BMI) than haloperidol patients throughout the 24-month study period. **CONCLUSIONS:** Schizophrenia patients under olanzapine treatment showed a higher degree of integration into social and occupational environment. For olanzapine patients, all schizophrenia symptoms improved over time. Throughout the study, olanzapine patients exhibited less EPS and had a lower BMI.

PMH25

EFFECTIVENESS AND TOLERABILITY OUTCOMES OF RISPERIDONE LONG-ACTING INJECTION COMPARED TO CONVENTIONAL DEPOT ANTIPSYCHOTICS IN A LARGE CANADIAN PSYCHIATRIC HOSPITAL

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OBJECTIVE: To compare effectiveness and tolerability outcomes of patients with schizophrenia treated with risperidone long-acting injection and patients treated with conventional depot antipsychotics. **METHODS:** Patients initiated on risperidone long-acting injection during a four-month index period were compared to patients initiated on a conventional depot antipsychotic during the same time period. Patient demographics including age, gender, diagnosis, number of previous psychiatric admissions and in-patient program were evaluated. The effectiveness outcomes of antipsychotic polypharmacy, discharge and readmission rates were compared. Neurological tolerability

was assessed as measured by the prescribing of regularly scheduled anticholinergic rescue medications. **RESULTS:** Forty patients initiated on risperidone long-acting injection were compared to 49 patients initiated on a conventional depot antipsychotic. The two patient groups were demographically very similar. The risperidone long-acting injection group was 75% male with an average age of 41-years and 6.0 previous psychiatric admissions. The conventional depot group was 67% male with an average age of 47.5 years and 5.9 previous psychiatric admissions. Antipsychotic polypharmacy was reduced from 63% to 31% in the risperidone long-acting injection group but increased from 29% to 73% in the conventional depot group. The use of anticholinergic rescue medications decreased from 47% to 12% in the risperidone long-acting injection group but increased from 31% to 73% in the conventional depot group. After 12-months of observation, 83% of the risperidone long-acting injection patients had been discharged and none had been readmitted, whereas 58% of the conventional depot group had been discharged and, of those, 26% had already been readmitted. **CONCLUSION:** In this difficult-to-treat population of patients, risperidone long-acting injection conferred significant advantages over conventional depot antipsychotics in terms of effectiveness and tolerability. As well, the substantial differences in discharge and readmission rates infer considerable pharmacoeconomic advantages in favor of risperidone long-acting injection.

PMH26

USING CLAIMS DATA TO ESTIMATE THE ANNUAL PREVALENCE OF SCHIZOPHRENIA IN THE UNITED STATES, 2002

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OBJECTIVES: This study estimates the annual prevalence of schizophrenia in the U.S. based on administrative claims data analyses and a comprehensive literature review. **METHODS:** The 2002 annual prevalence rate of schizophrenia in the U.S. was estimated separately for privately insured, government insured (Medicare, Medicaid), and uninsured populations. The 2002 annual prevalence for privately insured individuals was calculated based on a de-identified administrative claims database of approximately 3.0 million privately insured beneficiaries covering the period from 1999 to 2003. The 2002 prevalence of Medicaid enrollees was calculated from Medi-Cal claims covering the period from 2000–2002. The 2002 schizophrenia prevalence in Medicare population was calculated as a weighted average of the prevalence rates of Medicaid/Medicare dual eligibles and private insurance program enrollees over 65. Published statistics were used to estimate the prevalence of schizophrenia in the uninsured population and to weight prevalence rates in different populations to estimate the 2002 annual schizophrenia prevalence in the general U.S. population. **RESULTS:** The annual prevalence rate of schizophrenia in the U.S. in 2002 was estimated at 0.5%. The Medicaid population was identified as having the highest schizophrenia prevalence rate in the U.S. (1.7% for non Medicare dual eligible enrollees), whereas annual schizophrenia prevalence rates in Medicare and privately insured population were 0.7% and 0.1%, respectively. The disease was also more prevalent in the uninsured population (1.1%). Prevalence rates for women were highest in an older age group (56–65 years), whereas men's prevalence rates peaked somewhat earlier (46–55 years). **CONCLUSIONS:** The results suggest that schizophrenia may be more prevalent in the U.S. general population than previously estimated in some epidemiology survey studies, especially given the fact that claims database analyses usually